Gemini G3-UHF™

Mobile Data Modem for Private Networks

EXPERIENCE THE ADVANTAGE

• Parallel Decode provides added sensitivity in multi-path environments

• HyperCode FEC maintains connectivity and throughput while in motion

• Integrated GPS for AVL and for local mapping

• Dual IP filters support a mix of channel bandwidth

• On-line and off-line diagnostics deliver real-time performance statistics

• AES 128-bit data encryption for data and network security

MISSION CRITICAL CONNECTIVITY FOR MOBILE APPLICATIONS

The Gemini G3-UHF operates in the private licensed UHF spectrum. Designed specifically for government, public safety agencies and public utilites, this model integrates the necessary functionality for data-only vehicular installations.

The Gemini G3-UHF model combines dual IF filters for 12.5 and 25 kHz in a single unit that offers seamless roaming across any combination of these channel bandwidths. If you plan to migrate to 12.5 kHz channel of whether your network is optimized with both 12.5 and 25 kHz, the Gemini G3 product will ease your planning by simply roaming automatically from one bandwidth to another, without manual intervention.

Our patented Parallel-Decode technology, featuring dual receivers, and the use of HyperCode forward error correction (FEC), allow for greatest sensitivity especially in multi-path and fading environments. Equipped with a 12-channel GPS receiver, the Gemini G3 can determine the position, speed and direction of the vehicle. This can then be reported on-board the vehicle and/or to a remote dispatcher.

Embedded web server provides browser access for status and configuration of network parameters. Since the unit firmware and reconfigurations can be reprogrammed over-the-air, maintenance and upgrades are greatly facilitated.

GEMINI G3-UHF SPECIFICATIONS

GENERAL

Tx Frequency Range	403-460 MHz, 450-512 MHz
Rx Frequency Range	403-460 MHz, 450-512 MHz
Channel Bandwidth	12.5 and 25 kHz
Tx/Rx Separation	5 MHz (typ.)
Frequency Increment	5, 6.25, and 10 kHz
Number of Channels	32 internally stored, over-the-air programmable
Mode	Half-Duplex
Addressability	Native TCP/IP
Protocols	Dataradio E-DBA with OOB AAVL support, Ethernet IEEE 802.3, (ICMP, IGMP, TCP, UDP) IP Fragmentation Address Resolution Protocol (ARP), IP directed broadcast, IP limited broadcast, IP multicast relay DHCP client and server, Dynamic Routing (RIPv2), Network Address Translation (NAT)
Management	HTTP embedded web server for setup and help, SNMP
Encryption	AES 128-bit
Approvals	FCC, IC

RECEIVER

Sensitivity	
12.5 kHz	-100 dBm @ 32 kbps
	-106 dBm @ 24 kbps
	-109 dBm @ 16 kbps
25 kHz	-97 dBm @ 64 kbps
	-103 dBm @ 48 kbps
	-107 dBm @ 43.2 kbps
	-109 dBm @ 32 kbps
Adjacent Channel	75 dB (25 kHz)
	65 dB (12.5 kHz)
Spurious Response	>80 dB

TRANSMITTER

Frequency Stability	1.0 ppm
Output Power	10-40 W
Spurious Emissions	>75 db
Attack Time	<10 ms with less than 1 ms variation
FM Hum and Noise	-45 dB max

ELECTRICAL

Supply Voltage	10.9 to 16.3 VDC (13.6 VDC Nominal)

MECHANICAL

Dimensions	6.0 x 2.0 x 7.1", 15.2 x 5.1 x 18.0 cm
Weight	4.5 lbs, 2.04 kg

ENVIRONMENTAL

Operating Temperature	-30° to +60°C, (-22° to +140°F)
Vibration	MIL 810E
Shock	MIL 810E
Emission Designators	17K0F1D (all bit rates)

INTERFACE

Ethernet	10/100 BaseT auto-MDIX, RJ-45
Serial	(2) EIA-232F DE9 Female DCE, 300 to 115,200 bps
Primary Antenna	(2) TNC Female
GPS Antenna	SMA
Display	PWR/PGM, TX/RX, LNK/ACT (3 Bi-Colour status LEDs)

About CalAmp

CalAmp Corp. (NASDAQ: CAMP) is a proven leader in providing wireless communications solutions to a broad array of vertical market applications and customers. CalAmp's extensive portfolio of intelligent communications devices, robust and scalable cloud service platform, and targeted software applications streamline otherwise complex machine-to-machine (M2M) deployments. These solutions enable customers to optimize their operations by collecting, monitoring and efficiently reporting business critical data and desired intelligence from high-value remote assets. For more information, please visit www.calamp.com.